

ORIGINAL

# Tucson Electric Power Company

One South Church Ave., P.O. Box 711 Tucson, Arizona 85702

April 1, 2011

Docket Control Arizona Corporation Commission 1200 West Washington Street Phoenix, AZ 85007

Re: Decision No. 71465, Docket No. E-01933A-09-0340

2011 Renewable Energy Standard and Tariff Compliance Report

Pursuant to A.A.C. R14-2-1812, each Affected Utility shall file with Docket Control a report that describes its compliance with the requirements of the Renewable Energy Standard and Tariff ("REST") Rules. Decision No. 71465 (January 26, 2010) approved Tucson Electric Power Company's ("TEP") 2010 REST Plan. Please find enclosed an original and thirteen copies of TEP's 2011 REST Compliance Report for year-end 2010. This report contains confidential information that is being provided to Arizona Corporation Commission Staff separately.

If you have questions or comments please contact me at (520) 884-3680.

Sincerely,

Lessica Bryne

**Regulatory Services** 

**Enclosures: Compliance Report** 

cc: Compliance, ACC Shannon Kanlan, ACC

Arizona Corporation Commission

DOCKETED

APR - 1 2011

DOUNE TEU HY

SCATO CONTROL

# Tucson Electric Power Company

Response to R14-2-1812 Utility Reporting Requirements

of the

**Arizona Corporation Commission** 

# RENEWABLES DATA FOR YEAR-END 2010



#### **Executive Summary**

This report covers Tucson Electric Power Company's ("TEP") Renewable Energy Standard and Tariff ("REST") progress from January 1, 2010, through December 31, 2010. TEP's specific REST target for this period was 232,294,700 Renewable Energy Credits ("REC"). That amount represents 2.5% of TEP's retail energy sales for 2010, which was 9,291,788,000 kilowatt-hours ("kWh"). The REST requires that 20% of those RECs be met through distributed energy ("DE") renewable resources, which represents a total of 46,458,940 ("kWh"). Of the 20% met through DE resources, 50% must come from residential customer systems and 50% must come from non-residential, non-utility applications. The remaining portion of the REST required RECs for 2010, 80% or 185,835,760 kWh, comes from utility-scale renewable energy resources.

TEP far exceeded its 2010 utility-scale REC requirement with 347,484,897 available RECs. Of these, 185,835,760 were retired to meet compliance. Included in this number are RECs that were carried over (not retired) from 2009 as well as RECs purchased in 2010. RECs in excess of what is needed for compliance will be carried forward for use in future years.

DE reservations exceeded compliance requirements in all categories at 122% compliant. Annualized-actual production compliance in 2010 increased dramatically over 2009 by 168% and reached 65% compliant excluding outstanding customer projects still in construction. TEP expects this type of annualized-actual increase to continue into 2011 and 2012 as reserved customer-sited projects continue to come on line and the average development time of larger projects continues to decline.

As required by Decision No. 70233 (December 10, 2010), TEP is required to report a list of any cases within the previous three calendar years where TEP has received damages or other considerations as a result of non-compliance related to RES contracts. TEP has had no such cases in the previous three years.

TEP shall also disclose, as part of future annual REST plan filings, whether its affiliates, its employees, or its directors have any direct financial or other interest in renewable energy projects that are owned or whose output is contracted for by TEP. No affiliates, employees, or directors have any direct financial or other interest in renewable energy projects that are owned or whose output is contracted for by TEP.

#### 1.0 REST Requirements

The REST Rules as contained in Arizona Administrative Code R14-2-1801 became effective August 14, 2007 following approval from the Arizona Corporation Commission ("Commission"). Among other things, the REST rules require TEP to generate or purchase at least 15% of its total annual retail energy requirements from eligible renewable energy resources by 2025, with smaller amounts required in earlier years. The Commission determined that the REST should supersede the then existing Environmental Portfolio Standard ("EPS"), which like REST, was designed to encourage development of renewable generation. When the REST supplanted the EPS, the Commission ordered that all remaining EPS funds be transferred to the REST program and that TEP be released from all EPS requirements. Accordingly, some of the RECs generated during the EPS program were transferred to the REST compliance period. TEP's first REST Implementation Plan was approved by the Commission in Decision No. 70314 (April 28, 2008), and became effective on June 1, 2008. At that time, the RES Tariff was added to customer bills. After this date, the REST compliance period began, and the EPS compliance period ended.

<sup>&</sup>lt;sup>1</sup> One renewable energy credit, or REC, is equivalent to one kWh of production from an eligible renewable energy resource. Except for RECs from distributed energy resources, in order to receive credit for energy from an eligible renewable energy resource, the energy must be delivered to retail customers.

Tucson Electric Power Company 2010 REST Compliance Report

Table 1.1 – The REST mandate from 2008 to 2025 as required percentages of retail sales

Year	REST Requirement	Year	REST Requirement
2008	1.75% (10% DG)	2017	7.00% (30% DG)
2009	2.00% (15% DG)	2018	8.00% (30% DG)
2010	2.50% (20% DG)	2019	9.00% (30% DG)
2011	3.00% (25% DG)	2020	10.00% (30% DG)
2012	3.50% (30% DG)	2021	11.00% (30% DG)
2013	4.00% (30% DG)	2022	12.00% (30% DG)
2014	4.50% (30% DG)	2023	13.00% (30% DG)
2015	5.00% (30% DG)	2024	14.00% (30% DG)
2016	6.00% (30% DG)	2025	15.00% (30% DG)

Source: Renewable Energy Standard and Tariff, Section R14-2-1804 and R14-2-1805

Table 1.2 - 2010 compliance requirements by category in kWh

Category	kWh Goal
Jan - Dec 2010 TEP Retail Sales	9,291,788,000
REST Target @ 2.5% of Retail Sales	232,294,700
Distributed Energy @ 20% of REST Goal, including:	46,458,940
50% Residential DE	23,229,470
50% Non-Residential, Non-Utility DE	23,229,470
Utility Scale @ 80% of REST Goal	185,835,760

 $Table \ 1.3-kWh \ of \ energy \ or \ equivalent \ obtained \ from \ eligible \ renewable \ energy \ resources \ for \ Utility-Scale \ and \ Distributed \ Energy$ 

#### TEP 2010 RECs:

EP 2010	REUS:							
	Citelory	Production (kWh)	REST Multiplier(s) Applied	Multiplier Value	Extra Credits (from multipliers)	Total RECs		
	Landfill Gas	19 290 332	In-State Manufacturing and Installation Content	0.05	1.096.820	19,377,15		
	Landrii Gas	10,200,002	In-state Manuacturing and Installation Content	2.190 * kW capacity produced	1,030,020	49,000,042.		
	Giobal Solar		and sold in 2010	8,688,154	8,688,15			
			Manufacturing Partial Credit Annual kWh Production					
		* ,	In-State Manufacturing and Installation Content	0.5 * % in-state cost	417,387			
	Springerville Solar		In-State Power Plant Installation Credit	0.5	2,998,911			
ility-Stale	-		Distributed Generation Credit	0.5	N/A			
(Non-			Subtotal			9,414,12		
istributed		206,501	Annual kWh Production					
Energy)			In-State Manufacturing and Installation Content	0.5 * % in-state cost	24,155			
	OH/DMP Projects		In-State Power Plant Installation Credit	0.5	103,250			
			Distributed Generation Credit	0.5	N/A			
			Subtotal			333,90		
	Other-Short Term Purchases	145,296,000		N/A	145,296,00			
	Total Non-DE Production	169,780,655						
	Subtotal Non-DE RECS				183,109,33			
		8,093,312	Annual kWh Production					
	Solar PV (Residential)		In-State Manufacturing and Installation Content	0.15	97,470			
			In-State Power Plant Installation Credit	0.5	324,901			
			Distributed Generation Credit	0.5	324,901			
			Subtotal			8,840,58		
	Solar Hot Water (Residential)	3,381,546	Annual kWh Production			3,381,54		
	10	293,685	Annual kWh Production					
			In-State Manufacturing and Installation Content	0.5 * % in-state cost	25,202			
stributed Energy	GreenWatts (Commercial)		In-State Power Plant Installation Credit	0.5	146,842			
rneig)			Distributed Generation Credit	0.5	146,842			
			Subtotal			612,57		
	Wind (Commercial)	4,229	Annual kWh Production	N/A		4,22		
	Solar PV (Small Commercial)	698,388	Annual kWh Production	N/A		698,38		
	Solar PV (Large Commercial)	19,285,836	Annual kWh Production	N/A		10,285,83		
	Solar Hot Water (Commercial)	22,547	Annual kWh Production	N/A	_	22,54		
	Total DE Production	22,779,542						
	Subtoral DE RECa					23,845,70		
	Total DE RECs To Be Retired							
	Total 2010 Non-DE RECs					183,109,33		
	Carryover Non-DE RECs from 20	109		·		164,375,56		
unamary	Total (Non-DE 2010 new producti				-	347,484,89		
	Total Non-DE Retired in 2010					185.835.76		
	Total Non-DE Carryover to 2011							

Tucson Electric Power Company 2010 REST Compliance Report

TEP reports DE production in three compliance scenarios: (1) metered production from currently installed systems; (2) production that is annualized to more accurately reflect currently installed systems; and (3) the annualized production from currently installed *plus* the annualized production of reserved systems in construction to fully reflect the most accurate compliance picture.

Table 1.4 – DE kWh equivalent obtained from actual production; from production normalized to reflect a full year's production; and also to demonstrate the reserved kWh equivalent

	Residential			Commercial			Total DE kWh		
	Actual (Actual production Jan-Dec 2010)	Annualized (production prorated Jan-Dec for current systems)	Annualized production + Annualized Reservations	Actual (Actual production Jan-Dec 2010)	Annualized (production prorated Jan- Dec for current systems)	Annualized production + Annualized Reservations	Actual (Actual production Jan-Dec 2010)	Annualized (production prorated Jan-Dec for current systems)	Annualized production + Annualized Reservations
Installed kWh	11,474,858	17,368,046	23,950,459	11,304,684	12,705,615	32,541,432	22,779,542	30,073,661	56,491,891
Required kWh	23,229,470	23,229,470	23,229,470	23,229,470	23,229,470	23,229,470	46,458,940	46,458,940	46,458,940
% Compliance met	49%	75%	103%	49%	55%	140%	49%	65%	122%

#### 2.0 Generation Capacity and Technology

The REST rules allow for a variety of renewable technologies to be utilized for compliance. TEP's utility scale efforts are strategically designed to minimize resource costs to consumers, capture economy of scale, utilize proven technologies, have a benefit to Tucson area residents, rely very little on transmission capacity, and have a sustainable environmental footprint. DE projects are not controlled by TEP and customers have graduated toward almost exclusively solar PV and solar water heating. The industrial market place in TEP's service territory is moving more toward chilling and cogeneration or hybrid PV and water heating. TEP promotes technologies that provide the most cost-effective RECs.

Tucson Electric Power Company 2010 REST Compliance Report

Table 2.1 – Generation capacity disaggregated by technology type

Technology Type	kW Capacity, Cumulative	2010 kW Capacity, New	2010 Actual kWh production	Annualized kWh production
Utility Scale:				
Solar PV	8,312	3,400	5,997,822	14,610,400
Landfill Gas	5,000	n/a	18,280,332	18,280,332
Subtotal Utility Scale	13,312	3,400	24,278,154	32,890,732
Distributed Energy:				
Solar PV	16,605	11,594	19,371,220	30,870,569
Solar Thermal	1,085	418	3,404,093	2,984,413
Wind	12	12	4,229	15,600
Subtotal DE	17,702	12,024	22,779,542	33,870,581
TOTALS	31,014	15,424	47,057,696	66,761,313

#### 3.0 REST Costs, Surcharges, and Expenditures

The costs of the REST are covered by revenue collected from the REST surcharge on customer bills. These caps are set by the Commission and vary by customer class. The surcharge is set to collect the money required to cover the Commission approved REST budget. TEP prepares the budget as a part of its annual implementation plan filing.

Table 3.1 – 2010 Commission approved REST line-item budget

	Budget Diections (\$)	Budget litures (\$)
To Be Recovered Through REST Charges 2008 & 2009 REST Funding Carried Forward	\$ 31,803,701 12,048,727	
REST Expenditures		
Purchased Renewable Energy		
Above Market Cost of Conventional Generation		\$ 11,331,633
Transmission Direct Use Cost		480,000
Grid Management Ancillary Services		200,000
Other		120,000
Customer Sites Distributed Renewable Energy		
Up-Front Payments Customers		21,988,706
Production Based Payments to Customer		5,369,000
Builder Credit Purchase Program		700,000
Outreach Efforts		750,000
Other		1,342,000
Information Systems		375,000
Net Metering		144,078
Reporting		175,000
Outside Coordination and Support, Research and		
Development		
Support to University Research		250,000
Other		177,000
Renewable Energy Hardware Development		
Technology Development Projects		400,000
Other	 	50,000
Total	\$ 43,852,428	\$ 43,852,417

Part of the annual budget process is creating an estimate of the surcharges by customer class. Because these customer REST surcharges are paid in correspondence with actual kWh used by the customer, the estimated surcharges will differ from actual collections in accordance with the variance from forecast customer consumption and actual kWh consumption.

Tucson Electric Power Company 2010 REST Compliance Report

Table 3.2 – Actual surcharge collected from customers, by customer class in 2010

Date	Residential	Small General Service	Large General Service	Large Light & Power & Mining	Total
333					
Jan-10	\$1,306,749.35	\$707,480.01	\$189,943.62	\$60,157.55	\$2,264,330.53
Feb-10	\$982,451.45	\$918,648.49	\$377,469.73	\$119,320.08	\$2,397,889.75
Mar-10	\$1,138,443.16	\$1,006,573.69	\$425,517.52	\$130,424.07	\$2,700,958.44
Apr-10	\$1,055,975.09	\$988,379.27	\$411,705.31	\$134,639.37	\$2,590,699.04
May-10	\$970,431.95	\$943,314.37	\$377,077.87	\$136,273.10	\$2,427,097.29
Jun-10	\$1,075,817.41	\$1,169,353.70	\$413,876.70	\$128,470.38	\$2,787,518.19
Jul-10	\$1,109,542.69	\$1,319,203.24	\$435,122.83	\$137,984.46	\$3,001,853.22
Aug-10	\$1,075,507.92	\$1,233,407.88	\$411,511.29	\$149,519.14	\$2,869,946.23
Sep-10	\$1,111,942.43	\$1,302,822.36	\$437,630.88	\$138,596.54	\$2,990,992.21
Oct-10	\$1,021,664.17	\$1,143,105.06	\$415,082.46	\$141,837.15	\$2,721,688.84
Nov-10	\$981,269.01	\$990,051.99	\$398,154.03	\$140,212.21	\$2,509,687.24
Dec-10	\$994,595.27	\$947,369.75	\$363,265.07	\$139,647.79	\$2,444,877.88
· · · · · · · · · · · · · · · · · · ·	\$12,824,389.90	\$12,669,709.81	\$4,656,357.31	\$1,557,081.84	\$31,707,538.86

Actual REST spending by TEP is tracked by line item. Money not spent will be carried over into the 2012 REST budget.

Table 3.3 – Cents per actual kWh of energy obtained for utility scale generation charged to REST (AMCCCG)

	Generation	Total	MCCCG	PPFAC	AMCCCG	AMCCCG
	(kWh's)	Cost	(\$/kWh)	COST	(\$/kWh)	COST
TOTAL	145,296,000	\$10,462,950.42	\$0.03123	\$4,587,498.90	\$0.04078	\$5,875,374.02

Table 3.4-2010 collections and expenditures and any funds carrying over into the 2012 REST Implementation Plan

	2010 REST Collections (\$)	2010 REST Expenditures (\$)
REST Collections	\$31,707,539	
REST Funding Carried Forward from Prior Years	12,048,727	
REST Expenditures		
Purchased Renewable Energy		
Above Market Cost of Conventional Generation		\$4,742,214
Manufacturing RECs		831,859
Other		238,283
Customer-Sited Distributed Renewable Energy		
Up-Front Payments Customers - Residential		19,563,699
Reserved Funds for Up-Front Payments Customers - Residential		3,660,001
Up-Front Payments Customers - Commercial		1,070,168
Reserved Funds for Up-Front Payments Customers - Commercial		7,928,441
Production Based Payments to Customer		1,176,726
Outreach Efforts		549,857
Other Customer-Sited Distribution		740,434
Information Systems		207,720
Net Metering		178,691
Reporting		114,830
Outside Coordination and Support, Research and Development		
Support to University Research		220,000
Technology Development Projects		456,317
Other		268,703
Total	\$43,756,266	\$41,947,943
		ψ <del>π</del> 19/π19/πυ
Total Expenditures	41,947,943	_
Carried Over to 2012	\$1,808,323	=

#### 4.0 Further Discussion of Utility Scale

#### 4.1 RFP Process for PPA's

In 2010, TEP completed the Request for Proposal ("RFP") process from fall 2009. Results of that RFP and Accion's Independent Auditing report were filed with the Commission in 2010. As a result of that RFP, a total of eight (8) new solar Power Purchase Agreements ("PPA") were signed by TEP, two (2) PPA's were signed by UNS Electric, and two (2) additional self-build contracts were signed by each company and the Solon Corporation. TEP expects to self-build approximately 5 MW in 2011 and 2012, and UNS Electric expects to build approximately 1.25 MW in 2011 and 2012. Listed in Table 4.1 is all of the current contracts both under construction and planned.

Tucson Electric Power Company 2010 REST Compliance Report

Table 4.1 – TEP & UNSE Renewable Contracts and Projects

Resourc	e/ Counterparty	Technology	Location	Operator	Completion Date	Term (Years)	Purchase Option	Capacity
olar								.,,
PPAs	Amonix	Concentrating PV	Tucson, AZ	Amonix	2011	20	On or after yr. 6 at FMV	2
	Swan Solar	Concentrating PV	Tucson, AZ	Amonix	2011	20		12
	NRG Solar	Fixed PV	Tucson, AZ	NRG Solar	2011	20		25
	First Light	Fixed PV	Tucson, AZ	CTC	2011	20		5
	Emcore Solar	Concentrating PV	Tucson, AZ	Emcore	2011	20		2
	Solon	SAT PV	Kingman, AZ	Solon	2011	20		5
		SAT PV	Santa Cruz	Solon	2012	20		5
	Solon		County		441.00			
	FRV Tucson Solar	SAT PV	Tucson, AZ	Renewable Ventures	2012	20		25
······································	FSP Solar One	SAT PV	Tucson, AZ	Foresight Solar	2012	20		4
	FSP Solar Two	SAT PV	Tucson, AZ	Foresight Solar	2012	20		12
	Avalon Solar	Fixed PV	Marana, AZ	Avalon	2012	20		35
•••	Renewable Fuel	Solar Thermal	Tucson, AZ	Bell IPC	2013	20	V T	5.5
/ind	······································							
	Western Wind	Wind	Kingman, AZ	Western Wind	2011	20	None	11
	Energy US Corp							
	Macho Springs	Wind	Deming, NM	Element Power	2011	20	None	50
andfill Gas								
	Sexton Energy	Landfill Gas	Tucson, AZ	Sexton Energy	2013	15	None	2.2

#### **Owned / Under Construction**

	Fuel/ Plant	Technology	Status	Completion Date	Net Capacity MW
Solar					
	Springerville Solar Station	Fixed PV	Complete	2002	4.6
	Springerville Solar Expansion	Fixed PV	Complete	2010	1.8
	UASTP	SAT PV	Complete	2010	1.6
	Tucson Airport Project	SAT PV	In progress	2011	. 5
	TBD	SAT PV	Scheduled	2012	5
					***************************************

#### 4.2 Landfill Gas

In August 1999, TEP and the City of Tucson started producing electricity from the installation of a nameplate 5 MW landfill gas system at the Los Reales Landfill in Tucson, Arizona. The landfill gas is piped from the landfill to the Sundt Generating Station, where it is co-fired with coal and/or natural gas.

In 2010, TEP's landfill gas resource produced 18,280,332 kWh, equivalent to the same number of RECs. Applying the In-State Manufacturing and Installation Content Extra Credit Multiplier to this production added 1,096,820 RECs for 2010. In total, the landfill gas resource produced 19,377,152 RECs.

#### 4.3 Existing Photovoltaics

The Solar PV System located at the Springerville Generating Station ("SGS") has an approximate nameplate capacity of 4.6 MW. It was increased in size in 2010 by 1.8 MW. In 2010, the actual energy production was 5,997,822 kWh. Inclusive of applicable extra credits from multipliers, the total SGS RECs in 2010 were 9,414,120. Estimated annualized production of the 1.8 MW installed is 3,060,000 kWh additional that will be fully realized in 2011. No SGS RECs were sold, nor retired, in the 2010 REST compliance period. 1.6 MW was also installed at the University of Arizona Science and Technology Park. This installation is a single axis tracker expected to output 3,200,000 kWh annually. These RECs will be fully realized in 2011.

#### 4.4 TEP-owned

As approved by the Commission, TEP completed its two planned solar projects in 2010: the 1.6 MW single-axis tracking system built by SOLON, and the 1.8 MW expansion of the Springerville solar facility, bringing the total Springerville solar capacity to 6.4 MW.

#### 4.5 UA Tech Park

Approximately 200 acres of construction is underway at what will soon be a world-class solar research park called the University of Arizona Science and Technology Park Solar Zone. TEP will be placing 20 MW of various technologies for the purposes of renewable energy generation and state of the art comparative analysis on solar technologies and processes that will significantly impact the efficacy of solar power in the United States. In 2010, 1.6 MW of single axis tracking PV was commissioned and estimated annualized production would be 3,200,000 kWh. Similar to the Springerville addition, this production will be fully realized in 2011. Completion of the second project, a 2 MW concentrated photovoltaics ("CPV") being built by Amonix, is expected to be completed in April 2011. Construction of the third and fourth projects are expected to begin in the summer of 2011 and completed in the spring of 2012.

#### 4.6 Manufacturing Credits

TEP buys RECs from Global Solar, under the REST Manufacturing Partial Credit (R14-2-1807) rule. This rule stipulates that an affected utility (TEP) can earn RECs using the following calculation:

Nameplate capacity produced in AZ and sold Year X \* 2190 = Total RECs

As a result of its investment in Global Solar, TEP obtained 8,688,154 RECs in 2010 that are eligible to contribute to its REST requirement.<sup>2</sup> In 2010, Global Solar sold PV modules that were produced and sold at the Tucson facility with a combined nameplate capacity of 4,613 kW. Using the 2,190 factor assumes a 25% capacity factor for these units when they are deployed.

<sup>&</sup>lt;sup>2</sup> Manufacturing Partial Credits obtained from Global Solar are prorated between TEP and UniSource Energy Services, at a rate of 86% and 14%, respectively.

#### 5.0 Further Discussion of DE

#### 5.1 Residential DE

The residential DE market increased dramatically in the TEP service territory in 2010. In 2007, a small handful of companies were doing solar installations in the area. In 2010, more than 150 companies were installing PV and solar hot water, primarily due to significantly lower system prices and relatively high incentive levels. The combination of lower prices, attractive incentives, and significant consumer demand for solar, TEP funds were exhausted in July. Special Commission proceedings were held to transfer additional funds into residential DE and the incentives were lowered from \$3.00 per Watt DC to \$2.00 per Watt. TEP worked diligently to streamline DE reservation processes, improve inspection and metering policy, and worked diligently to support the massive impact of solar construction on local area inspection jurisdictions. TEP also published improved technical specifications for solar installations to insure safe and reliable grid integration. The residential marketplace continues to be a dynamic and rapidly changing environment.

#### 5.2 Small Commercial DE

Similar growth occurred in the small commercial marketplace in 2010, despite the limited availability of capital in the small commercial marketplace. This is due largely to increases in UFI upper limits for both PV and hot water. TEP raised the maximum PV UFI level from 20 kW A/C to 100 kW. Incentives were reduced for PV in this area as well from \$2.50 per Watt DC to \$1.50 per Watt.

#### 5.3 Large Commercial and Industrial DE

TEP had a very stable and productive year for large commercial projects. This is due largely to limiting the size of large, single-customer installations by dividing PBI money into monthly auction segments. The resulting upper limit for project size was ~500 kW. The large commercial market was able to participate in incentive programs for the entire year.

Table 5.1 - Residential, Small and Large Commercial REC prices for DE by technology

## **Incentive Summary Tables**

### RECPP - CONFORMING PROJECT INCENTIVE MATRIX

2010	Program	Year

•				
Technology/Application	UP FRONT INCENTIVE ' 20-Year REC Agreement	10-Year REC Agreement <sup>2</sup> 10-Year Payment (\$/kWh)	15-Year REC Agreement <sup>2</sup> 15-Year Payment (\$/kWh)	20-Year REC Agreement <sup>2</sup> 20-Year Payment (\$/kWh)
BIOMASS/BIOGAS (Electric)	NA	0.060	0.056	0.054
BIOMASS/BIOGAS ~ CHP (Electric) <sup>4</sup> BIOMASS/BIOGAS ~ CHP (Thermal) <sup>3</sup>	NA	0.035 0.018	0.032 0.017	0.031 0.016
BIOMASS/BIOGAS (thermal)	NA	0.015	0.014	0.013
BIOMASS/BIOGAS (cooling)	NA	0.032	0.030	0.029
DAYLIGHTING (Non-Residential)	\$0.18/kWh <sup>†</sup> See this note for classification	NA	NA	NA
GEOTHERMAL - (electric) GEOTHERMAL - (thermal) Ground Source Heat Pump - (cooling)	NA NA \$500/ton	0.024 0.048 NA	0.022 0.045 NA	0.022 0.043 NA
SMALL HYDRO	NA	0.060	0.056	0.054
SMALL WIND (grid-tied) * SMALL WIND (off-grid) *	\$2.25/Watt AC \$1.80/Watt AC	NA NA	NA NA	NA NA
SOLAR ELECTRIC: RESIDENTIAL (GRID-TIED) Non-Residential (Grid-Tied) 100 kW or less NON-RESIDENTIAL (GRID-TIED) More than 100 kW RESIDENTIAL (OFF-GRID) NON-RESIDENTIAL (OFF-GRID)	\$3.00/Watt DC * \$2.50/Watt DC * NA \$2.90/Watt DC * \$2.00/Watt DC *	NA NA 0.182 NA NA	NA NA 0.168 NA NA	NA NA 0.162 NA NA
SOLAR SPACE COOLING *	NA	0.116	0. 108	0. 104
SOLAR WATER HEATING/SPACE HEATING 2,8,10 (Non-Residential, 35,000 annual kWh output production equivalent or less)	\$750 plus \$0.50/kWh	NA	NA	NA
RESIDENTIAL SOLAR WATER/SPACE HEATING (35,000 annual kWh output production equivalent or less) e.x.10	\$750 plus \$0.25/kWh	NA	NA	NA
NON-RESIDENTIAL POOL HEATING	NA	0.012	0.011	0.011

#### Notes:

- 1) Residential projects are eligible for an up-front incentive (UFI)). UFI payments cannot exceed 60% of the cost of renewable energy equipment.
- Non-residential systems under 100 kW is a UFI but can be a PBI. Non-residential 100 kW and greater is PBI only. The total of payments under a
  production based incentive cannot exceed 60% of the project costs for any project.
- The CHP incentives may be used in combination for the appropriate components of one system.
- 4) This PBI applies to a maximum system size of 1 MW.
- 5) The solar space heating and cooling incentives may be used in combination for the appropriate components of one system.
- 6) This category includes both traditional water heating and those systems combined with residential solar water heating used for space heating applications require a report detailing energy saving for the complete system.
- 7) Rate applies to measured first five years of energy savings only. Payments are made over a five year period.
- 8) Some UFI based installations will require an adjustment of the incentive as detailed in the PV Incentive Adjustment Chart.
- 9) Energy savings rating is based on the SRCC OG-300 published rating or the TEP-RECPP Space Heating Calculator. The customer contribution must be a minimum of 15% of the project cost after accounting for and applying all available Federal and State incentives.
- 10) Rate applies to forecast/measured first year energy savings only.
  - NA Not Available

Tucson Electric Power Company 2010 REST Compliance Report

Table 5.2 – 2010 DE project volume and capacity

Commercial	PV	Solar Hot Water	Total
Applications Reserved in 2010	96	25	121
Annualized kWh	16,689,988	1,644,688	18,334,676
Capacity (kW)	9,818	598	10,416
Installed in 2010	23	6	29
kWh	9,404,919	92,363	9,497,281
Capacity (kW)	5,532	34	5,566
Reservations Carried Into 2011	80	19	99
kWh	19,562,663	441,867	20,004,530
Capacity (kW)	11,507	161	11,668

Residential	PV	Solar Hot Water	Total
Applications Reserved in 2010	1,335	740	2,075
kWh	15,505,205	2,002,864	17,508,069
Capacity (kW)	9,121	728	9,849
Systems installed in 2010	929	375	1,304
kWh	10,305,133	1,057,800	11,362,933
Capacity (kW)	6,062	385	6,446
Reservations Carried Into 2011	481	447	928
kWh	5,855,708	1,175,552	7,031,260
Capacity (kW)	3,445	427	3,872

Attestation for utility receipt of purchase of renewable energy and credits



#### RENEWABLE ENERGY CREDIT CERTIFICATE

In connection with that certain Confirmation dated May 17, 2010, subject to that certain WSPP Agreement (the "Agreement"), by and between Powerex Corp and Tucson Electric Power Company, the undersigned certifies, as of the February 28, 2011, as follows:

- 1. The generators (the "Facilities") are renewable electric generating facilities located in the Province of British Columbia.
- 2. The Facilities commissioning dates and nameplate generating capacities are as follows:

Facility	<u>C.O.D.</u>	Location	Capacity
Armstrong Tolko Woodwaste Tembec Pulp and Paper Vancouver Landfill Gas – Unit 1 Vancouver Landfill Gas – Unit 2 Canfor Prince George Bioenergy	24-Jun-2003 14-Sep-2001 21-Sep-2003 02-Oct-2006 12-May-2005	Armstrong Skookumchcuk Delta Delta Prince George	20.4 MW 43.2 MW 5.5 MW 1.9 MW 59.9 MW
Domtar Kamloops	01-Jul-2004	Kamloops	74.0 M\

Each Facility was certified by TerraChoice as an Ecologo Class III Certified facility.

- 3. This Renewable Energy Credits Certificate represents the Renewable Energy Credits (as defined in the Confirmation) associated with 91,102 MWh of electric energy generated at the Facilities during July through November 2010 pursuant to the Agreement. This Renewable Energy Credits Certificate has no stated or intrinsic value.
- 4. The Renewable Energy Credits sold to Purchaser pursuant to the Agreement have not been and shall not be sold, pledged, hypothecated or assigned to any party other than Purchaser. Seller has good and marketable title to such Renewable Energy Credits, free and clear of all mortgages, liens, security interests, pledges, charges, encumbrances, or claims of any nature except as created by this Agreement, and Seller has full right, power and authority to sell, transfer and deliver such Renewable Energy Credits.
- 5. WITH PURCHASER'S KNOWLEDGE AND CONSENT, SELLER EXPRESSLY NEGATES ANY REPRESENTATION OR WARRANTY, OTHER THAN THOSE EXPRESSLY STATED IN THE AGREEMENT, WHETHER WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE ELIGIBILITY OF THE RENEWABLE ENERGY CREDITS SOLD UNDER THE AGREEMENT TO BE APPLIED, USED OR SUBMITTED TO ANY PROGRAM, GOVERNMENTAL OR OTHERWISE, AND ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY AND ALL IMPLIED WARRANTIES ARE DISCLAIMED.

Powerex Corp.

Dated:

February 28, 2011

By: Name: Title:

Robert Campbell

Managing Directo

TOTAL	009	8	8	900	000	009	584	009	009	009	511	391	283	909	900	900	900	900	009	009	009	009	900	009	009	009	009	000	009	599	009
HE24	25	52	52	52	22	52	52	52	52	22	30	16	22	52	22	52	52	22	8	52	52	52	52	52	52	52	52	22	22	52	25
HE23	25	52	52	52	22	52	22	52	52	52	18	. 16	52	52	83	52	52	52	8	8	22	22	52	22	53	52	8	22	52	22	23
HE22	25	25	. 52	52	25	25	22	52	52	22	16	16	52	52	52	52	52	52	52	52	52	52	52	52	55	52	32	52	22	52	22
HE21						52																									
HE20						52																									
HE19	ŀ					x																									
HE18						52																•									
. HE17						25																									
5 HE 16	ı					5 25																									
F 上版 15						5 25																									
3 HE14						25 25																									
2 HE13						25 23																									
1 HE12						25 2																									
0 HE11						25 2																									
9 TE10						25 2																									
8 HE9	١.,	25	25	25	25					52																					
7 HE8	ဗ္ဗ	22	52	25	25					25		•								•											
9 H	۱.۸	32				25																									
93H S	١.					25																,									
HE5						25																									
33 HE4						25																									
HE2 HE3	۱.۸	25	25	25	25	25	25	25	25	22	25	19	17	22	25	25	52	52	22	22	22	52	52	22	25	25	55	25	22	22	z,
H	۱	52	52	22	22	55	55	22	55	8	22	19	16	52	22	22	22	22	22	22	25	22	52	22	52	52	52	22	22	25	35
	þ	1-10	-10	1-10	-10	-10	1-10	-10	10	12	1-10	1-10	10	10	-10	1-10	1-10	-10	1-10	1-10	10	10	<u>1</u> -10	10	1-10	1-10	1-10	-10	1-10	1-10	5
Date	1	2-Jul-10	3	4-Jul-10	5-Jul-10	6-Jul-10	7-Jul-10	8-Jul-10	176	10-701-10	11-Ju	12-Jul-10	13-Jul-10	14-Jul-10	15-Jul-10	16-Jul-10	17-Jul-10	18-Jul-10	19-701-10	20-711-10	21-Ju	22-Jul-10	23~Ju	24~Ju	25-Jul-10	26-Ju	27~Jul-10	28~Jul-10	29-Jul-10	30-Jul-10	24, [11], 10
	1																														

	7
	9
	,
	÷
	C
	7
	ζ
	Ξ
	<
	DECe Delivered to TED in Aug 40 for Deal
	n
	ŭ
	F
	(
	*
	ζ
	Š
	9
	3
	0
N.	C
Φ	4
lable	(
ď	Ĭ
_	0

I anie z	:		1	•	•	,			•		(													
RECs Delivered to TEP in Aug 10 for Dea	<u>Jivere</u>	Š	HEP	in A	ng 10	to L	*****	CKN CKN	183	ZZZ	9													
	五	띺	HE3	HE4	品	Н В	HE7	HE8	HE9 H	HE10 HE	HE11 HE12	12 HE13	3 HE14	. HE15	HE16	HE17	HE18 F		HE20 H		- 1	HE23 H	HE24	TOTAL
1-Aug-10	L	25	25	32	25	52	25	25	25	25	İ					52	52	53	52	52	52	52	52	009
2-Aug-10		22	25	52	52	52	25	22	22	52						22	22	8	52	22	22	52	52	009
3-Aug-10	32	22	25	22	52	53	52	52	52	22	52	25 2	25 25	5 25	8	16	16	.16	54	52	24	22	52	566
4-Aug-10	_	22	25	52	52	52	22	22	ß	25						52	22	ß	ĸ	52	22	52	22	009
5-Aug-10		22	25	25	52	22	22	52	22	52						22	52	8	ß	22	22	22	22	009
6-Aug-10	_	22	52	25	22	52	52	52	52	22						52	25	52	ß	22	22	52	22	009
7-Aug-10		22	25	25	22	52	52	52	22	52						22	22	ĸ	83	52	52	32	22	009
8-Aug-10		22	52	25		52	52	52	22	52						52	52	83	প্ত	22	22	52	53	009
9-Aug-10		22	25	52		52	52	52	52	52						52	52	52	22	22	22	52	52	009
10-Aug-10		22	52	25	જ	52	52	52	22	22						52	25	22	52	22	22	22	25	009
11-Aug-10		52	25	25		52	22	52	52	22						52	22	52	52	22	52	22	25	900
12-Aug-10		25	52	25		52	22	52	8	52						83	22	52	22	52	52	52	52	900
13-Aug-10		25	52	52	25	22	52	22	22	52						52	52	52	32	52	52	52	25	009
14-Aug-10		52	52	55		32	52	52	52	52						52	22	22	22	52	25	52	52	009
15-Aug-10		25	25	25		83	52	52	52	52						52	52	53	52	52	52	52	52	009
16-Aug-10		25	52	25		55	52	52	52	52						8	22	22	52	52	52	52	22	009
17-Aug-10		22	52	22		53	52	52	52	53						22	8	83	52	X	22	22	22	009
18-Aug-10		25	25	25		52	52	52	52	52						53	52	53	32	52	52	52	52	009
19-Aug-10		25	25	25		25	22	22	52	52						52	33	52	22	52	22	52	52	009
20-Aug-10		22	25	25		8	25	22	22	52						22	52	52	22	52	52	52	22	009
21-Aug-10		25	52	25		23	25	22	52	52						22	52	22	52	52	52	52	22	009
22-Aug-10		55	22	25		23	25	25	52	52						52	52	53	52	22	22	52	22	009
23-Aug-10		22	52	22		52	52	52	52	52				5 25		25	52	52	52	52	52	22	22	009
24-Aug-10		25	22	25		52	22	52	52	52						22	52	52	52	ß	52	22	22	009
25-Aug-10		52	25	25		25	25	52	. 25	55						52	52	22	52	22	52	22	52	909
26-Aug-10		25	25	32		32	52	22	52	52						22	52	53	25	22	22	52	52	009
27-Aug-10		22	25	25		22	25	52	52	52						52	52	52	22	52	52	52	32	009
28-Aug-10		52	25	25		22	25	52	22	52			•			52	52	52	52	52	52	52	52	900
29-Aug-10		52	25	22		52	25	52	52	52						52	52	22	52	52	22	52	52	900
30-Aug-10		22	52	25		53	25	52	22	52						52	52	52	52	52	52	. 52	52	594
31-Aug-10	25	52	25	22		52	25	52	22	25	١		١	25	22	8	52	23	52	52	22	52	52	900

TOTAL	900	009	009	009	009	009	009	000	900	009	009	009	009	009	009	009	551	575	009	009	009	586	291	460	009	900	265	298	280	900
HE24	52	25	22	22	52	52	52	22	52	52	25	52	52	প্ত	52	8	<del></del>	52	25	22	52	প্ত	32	25	52	52	133	52	32	52
	52	52	22	22	22	22	52	22	52	3	52	22	22	22	8	32	Ψ-	52	53	82	52	R	22	4	52	52	22	52	22	25
HE22		. 52																												
HE21		22																		•										
HE20		25																												
HE19	25	52	52	82	83	<b>8</b>	KS KS	:S	52	22	22	.2	22	22	53	S2 S2	22	22	22	25	83	23	22	17	22	53	52	23	22	5 25
		22																												
		2 22																												
	5	25 25	55	55		52	ις 23	52	ξ 23	55	ίδ <u>2</u>	35	23	55	2	35	2	2	55	5 2	5 2	5 2	. 2	1	2 2	55	5 2	2	2	2
4 HE15		25 2																												
13 HE14		25		-																										
12 HE13		25																												
1 HE12		52																												
HE10 HE11	22	25	22	52	22	52	52	22	22	22	25	22	22	52	52	52	25	52	25	25	25	25	22	13	52	25	22	22	23	25
出贸	52	25	22	22	22	52	52	55	52	22	22	32	22	22	52	22	22	25	22	22	52	55	75	25	52	32	52	52	ន	55
工器里	25	25	22	52	52	52	22	52	52	52	52	22	23	23	22	22	22	0	55	32	ß	52	g	55	52	33	52	22	83	52
吊工	1	22	22	52	52	22	X	52	52	22	22	52	25	52	52	52	32	22	52	52	22	52	ន	22	52	22	52	22	83	22
HEG	23	83	82	83	53	83	83	23	52	33	8	ß	ß	52	52	83	22	52	25	52	52	32	ន	22	22	22	83	33	ន	22
HE5	۱.,	52	22	83	52	52	52	22	22	52	25	52	52	22	52	22	52	52	25	52	52	52	23	52	52	22	22	52	g	52
###	1	52	22	52	52	52	22	22	22	25	52	22	22	52	22	52	22	52	22	52	52	52	52	52	52	52	52	22	23	52
HE3	25	52	32	22	53	52	22	22	25	25	25	22	25	52	22	52	25	25	22	55	25	52	52	52	52	52	22	52	R	25
HE2	25	22	52	22	52	22	52	22	25	25	25	25	25	25	25	25	25	25	25	55	22	22	25	52	52	52	22	25	23	25
Ħ	25	25	25	22	22	25	25	25	25	25	22	25	22	25	22	25	25	25	55	25	25	প্র	25	25	25	25				
	1-Sep-10	2-Sep-10	3-Sep-10	4-Sep-10	5-Sep-10	6-Sep-10	7-Sep-10	8-Sep-10	9-Sep-10	10-Sep-10	11-Sep-10	12-Sep-10	13-Seo-10	14-Sep-10	15-Sep-10	16-Sep-10	17-Sep-10	18-Sep-10	19-Sep-10	20-Sep-10	21-Sep-10	22-Sep-10	23-Sep-10	24-Sep-10	25-Sep-10	26-Sep-10	27-Sep-10	28-Sep-10	29-Sep-10	30-Sep-10

TOTAL	009	009	009	900	009	009	009	9	009	009	900	009	009	909	009	559	009	9	900	009	009	009	593	593	575	591	009	009	900	900	009
HE24	25	25	32	25	22	22	22	22	25	25	22	25	25	25	22	25	25	25	25	25	25	25	52	18	25	25	25	25	25	25	25
HE23 F	22	22	22	52	53	25	52	52	52	53	52	52	52	22	22	25	22	52	22	22	52	22	22	52	52	25	22	52	22	25	25
HE22 H	25	22	22	52	22	22	52	52	52	52	22	22	52	52	22	55	22	52	22	52	52	52	25	22	52	25	52	52	52	52	25
HE21 H	25	52	52	32	52	32	52	22	53	52	52	52	22	52	52	52	52	52	52	52	52	52	52	52	52	52	52	22	প্ত	52	25
HE20 H	25	52	25	52	25	22	52	22	22	25	25	52	22	52	22	25	52	52	52	22	52	52	25	52	22	22	52	52	22	22	22
HE19 H	     	52	22	83	22	22	52	8	22	52	33	22	22	52	53	22	83	52	52	22	52	ß	22	52	52	52	52	53	52	52	25
HE18 H	25	25	52	52	22	22	22	32	22	25	22	32	22	22	25	22	22	52	22	25	25	22	22	22	25	52	52	22	22	52	25
HE17 HE	25	22	22	22	22	22	22	22	22	25	22	22	25	22	22	22	83	22	22	25	22	22	22	22	52	22	22	52	22	22	25
HE16 HE	25	52	52	22	22	22	52	22	22	22	22	52	22	22	22	22	25	22	22	22	22	22	22	22	25	22	25	25	22	55	25
HE15 HE	25	52	52	22	22	52	52	25	52	22	22	52	22	22	22	22	25	22	22	52	22	22	18	22	22	25	22	25	25	22	25
HE14 HE	25	22	22	25	22	22	22	52	52	25	22	22	25	25	25	15	22	25	22	22	22	22	22	22	25	52	52	22	22	25	22
HE13 HE	25	52	25	22	25	52	22	52	53	52	22	22	22	22	22	0	22	22	22	22	22	22	52	52	25	22	22	22	83	52	22
HE12 HE	25	52	22	22	52	22	22	52	52	22	22	22	22	52	52	13	22	52	83	22	22	22	82	22	22	22	25	22	83	25	22
HE11 HE	25	25	25	22	22	55	22	22	22	22	52	22	25	22	52	74	25	52	52	52	52	22	25	22	22	22	25	52	25	22	22
HE10 HE	25	52	52	22	22	52	22	52	22	52	52	22	22	52	22	22	22	52	25	22	22	52	52	52	22	ន	22	22	52	55	52
HE9 HE	25	52	52	55	52	22	52	52	52	22	22	22	52	52	52	52	22	52	52	52	22	22	52	52	22	8	22	22	52	22	22
HE8 H	25	22	22	22	52	22	22	52	52	22	52	22	. 22	22	22	22	22	22	52	52	25	22	22	52	22	22	22	22	22	22	22
HE7 H	25	22	22	22	22	22	52	52	52	22	52	22	22	22	25	25	22	52	22	22	52	25	25	25	25	25	25	25	22	52	25
HE6 H			22																		Ċ										
HE5 H	25	22								22																					
HE4 H	25	32	25	22	25	55				53																					
HE3 H	25	25	22	22	25	22																									
HE2 H	25	25								52																					
	25	22	52																												
H			_	_	_	_																									_
Date	1-Oct-10	2-0ct-10	3-0ct-10	4-0ct-1(	5-0ct-10	6-0ct-10	7-0ct-10	ဗ် ဝိ	ਹੈ 0 0	10-Oct-10	11-0ct	12-Oct	13-Oct	14-0ct	15-Oct-	16-Oct	17-Oct	18-Oct-	19-Oct	20-Oct-	21-00	22-Oct-	23-Oct-	24-Oct-	25-Oct-	26-Oct-	27-Oct-	28-Oct-	29-Oct-10	30-Oct-	31-Oct-10
			<u> </u>																				_	_	•	•	•	-	• •	•	

TOTAL	009	009	009	900	900	9	625	900	009	009	000	900	900	009	900	009	009	009	009	900	009	009	009	009	900	900	900	900	900	900
HE24	25	52	25	52	52	. 25	52	25	25	52	52	25	25	52	52	25	52	52	22	52	22	22	25	52	52	52	52	52	25	25
HE23	25	52	52	52	52	22	25	25	22	22	22	52	22	52	52	52	22	52	25	52	52	22	52	25	22	52	52	52	22	35
HE22	22	52	52	25	52	22	52	25	22	22	52	22	25	25	22	22	22	52	22	52	22	52	22	22	52	52	52	52	52	25
HE21	25	22	52	52	52	52	52	52	52	52	22	52	52	52	52	52	52	52	52	52	22	52	52	52	52	52	52	22	22	25
HE20	25	52	25	52	25	25	. 52	52	25	25	25	22	25	25	22	22	22	22	25	52	52	22	25	52	22	52	22	22	52	35
HE19	25	22	93	श्च	53	52	52	52	52	22	22	8	52	33	52	22	8	32	X	8	52	22	32	32	52	ĸ	33	52	53	ď.
HE18	25	52	52	52	52	25	25	52	52	52	52	52	52	22	22	52	25	22	25	52	52	25	52	52	52	52	52	22	52	25
HE17	25	52	25	25	25	22	25	22	22	22	22	25	52	52	52	22	25	22	22	52	52	52	25	22	25	52	52	52	25	25
HE16	22	52	52	52	52	52	52	52	52	52	52	22	22	25	52	52	52	52	25	25	52	22	22	22	52	52	52	52	25	25
HE15	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	22	52	52	22	52	22	52	52	25	52	22	25
HE14	25	52	52	52	52	8	52	52	52	52	52	52	22	22	25	52	52	<b>52</b>	52	25	52	25	25	52	52	25	52	52	52	25
HE13	25	25	22	52	52	52	52	25	22	25	25	52	25	25	52	52	52	52	25	22	52	22	. 52	25	22	52	52	52	52	35
HE12	25	22	52	25	52	22	52	52	25	52	25	22	52	52	22	52	25	25	25	22	25	52	25	22	22	52	22	22	52	35
HE11	25	25	22	52	25	22	22	52	52	52	52	25	22	22	22	22	22	22	22	22	52	52	52	25	52	52	25	22	22	33
HE10	52	52	52	52	52	22	52	52	22	52	52	52	52	22	52	52	22	52	52	52	52	52	52	22	22	52	52	52	52	25
E3	25	52	22	52	52	53	52	22	22	8	52	22	52	52	52	22	52	52	52	22	52	22	22	52	23	22	52	22	52	ζ,
HE8	25	25	25	25	52	52	52	25	25	25	25	25	25	25	52	52	52	52	25	52	22	52	55	25.	25	22	52	52	25	2,
HE7	25	52	25	25	. 25	52	25	22	52	25	52	52	22	25	52	55	52	52	52	52	22	52	. 25	52	25	25	25	25	52	25
HE6	25	52	83	53	22	32	53	23	23	25	52	52	22	ধ্য	ĸ	22	8	52	52	22	83	SS	52	52	52	53	53	23	છ	35
HES	25	52	25	52	52	25	52	52	22	25	52	52	52	52	52	52	52	52	25	25	82	52	25	25	52	25	52	52	22	25
HE4									22																					
HE3	25	25	25	52	25	52	25	25	25	52	52	52	52	22	25	25	52	25	25	52	52	22	52	22	22	22	52	52	52	2,
HE2	25								22																					
HE1	25	52	25	25	25	£	. 25	22	22	25	25	25	22	25	25	25	55	22	25	25	22		25	53	22	25	25	25	25	ķ
Date	1-Nov-10	2-Nov-10	3-Nov-10	4-Nov-10	5-Nov-10	6-Nov-10	7-Nov-10	8-Nov-10	9-Nov-10	10-Nov-10	11-Nov-10	12-Nov-10	13-Nov-10	14-Nov-10	15-Nov-10	16-Nov-10	17-Nov-10	18-Nov-10	19-Nov-10	20-Nov-10	21-Nov-10	22-Nov-10	23-Nov-10	24-Nov-10	25-Nov-10	26-Nov-10	27-Nov-10	28-Nov-10	29-Nov-10	30-Nov-10



#### RENEWABLE ENERGY CREDIT CERTIFICATE

In connection with that certain Confirmation dated December 28, 2009, subject to that certain WSPP Agreement (the "Agreement"), by and between Powerex Corp and Tucson Electric Power Company, the undersigned certifies, as of the October 18, 2010, as follows:

- 1. The generators (the "Facilities") are renewable electric generating facilities located in the Province of British Columbia.
  - 2. The Facilities commissioning dates and nameplate generating capacities are as

follows:

Facility	<u>C.O.D.</u>	Location	Capacity
Armstrong Tolko Woodwaste Tembec Pulp and Paper Vancouver Landfill Gas – Unit 1	24-Jun-2003 14-Sep-2001 21-Sep-2003	Armstrong Skookumchcuk Delta	20.4 MW 43.2 MW 5.5 MW
Vancouver Landfill Gas - Unit 2	02-Oct-2006	Delta	1.9 MW
Canfor Prince George Bioenergy	12-May-2005	Prince George	59.9 MW
Hartland Landfill Gas	10-Feb-2004	Victoria	1.8 MW
Canfor Intercontinental*	01-Jul-2000	Prince George	25.0 MW

Each Facility was certified by TerraChoice as an Ecologo Class III Certified facility. \*Facility is Ecologo Class II.

- 3. This Renewable Energy Credits Certificate represents the Renewable Energy Credits (as defined in the Confirmation) associated with 70,224 MWh of electric energy generated at the Facilities during February through June 2010 pursuant to the Agreement. This Renewable Energy Credits Certificate has no stated or intrinsic value.
- 4. The Renewable Energy Credits sold to Purchaser pursuant to the Agreement have not been and shall not be sold, pledged, hypothecated or assigned to any party other than Purchaser. Seller has good and marketable title to such Renewable Energy Credits, free and clear of all mortgages, liens, security interests, pledges, charges, encumbrances, or claims of any nature except as created by this Agreement, and Seller has full right, power and authority to sell, transfer and deliver such Renewable Energy Credits.
- 5. WITH PURCHASER'S KNOWLEDGE AND CONSENT, SELLER EXPRESSLY NEGATES ANY REPRESENTATION OR WARRANTY, OTHER THAN THOSE EXPRESSLY STATED IN THE AGREEMENT, WHETHER WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE ELIGIBILITY OF THE RENEWABLE ENERGY CREDITS SOLD UNDER THE AGREEMENT TO BE APPLIED, USED OR SUBMITTED TO ANY PROGRAM, GOVERNMENTAL OR OTHERWISE, AND ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY AND ALL IMPLIED WARRANTIES ARE DISCLAIMED.

Powerex	Corp.	Mark Ho	
Dated:	October 18, 2010	By:	
		Name: Title:	

Table 1 RECs Delivered to TEP in Feb 10 for Deal CLA 998 / CLB 175

TOTAL	453	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	467	480
HE24	20	ଧ	ଷ	20	8	29	50	20	2	8	2	20	50	8	20	8	20	8	50	ଷ	23	8	ឧ	8	20	8	8	8
Ē23	8	ଷ	8	ଯ	ଯ	ଯ	ଷ	ଷ	8	8	ଯ	20	ଷ	8	8	ឧ	8	8	ଷ	8	8	ଷ	8	8	8	8	8	ន
E22 +	8	8	8	20	8	8	8	20	20	8	8	೪	8	8	8	ଯ	8	50	2	20	20	8	20	8	8	8	8	8
<u></u>	ឧ	ឧ	ន	ន	8	ឧ	ล	ឧ	ଷ	ឧ	ឧ	ឧ	ଷ	ୡ	8	ន	ន	ଷ	ଧ	ឧ	8	ន	8	ଷ	ଷ	ଯ	ଯ	ଷ
- 8	20	ឧ	ន	8	ន	ឧ	20	20	20	ଟ	2	20	8	ଥ	ន	20	8	8	8	8	ឧ	8	20	2	20	8	8	20
E19 H	20	8	8	8	8	8	20	20	20	8	20	8	8	20	20	20	8	8	8	8	8	8	20	20	20	20	8	20
<u>⊞</u>	ឧ	8	ล	8	8	8	8	8	20	ଧ	৪	ଧ	ଯ	ଯ	ଷ	ឧ	ଯ	ଯ	8	ଯ	ଯ	8	8	8	ឧ	20	8	ឧ
E17 H	20	8	8	8	8	20	8	8	20	ឧ	20	8	20	23	20	20	8	20	20	20	8	20	20	20	8	50	8	8
E16 H	8	20	ឧ	8	8	8	8	50	20	8	8	8	8	8	20	8	20	20	8	8	8	8	20	20	8	8	20	8
E15 H	8	20	8	8	8	8	8	ଷ	8	ଷ	8	8	8	8	20	ន	8	8	8	ន	ଯ	8	8	8	ଷ	20	8	ຊ
																											20	
																											20	
E12	ଷ	ଷ	ଯ	ឧ	8	ଯ	ଯ	ଷ	ଷ	ឧ	ន	8	ន	ន	8	ឧ	8	ଯ	ឧ	ଯ	ଥ	ឧ	ଯ	ଷ	ଷ	8	7	ឧ
E11 F	8	ଷ	ଷ	8	8	8	8	8	20	8	ឧ	8	ន	8	8	8	8	8	8	8	8	ន	8	20	8	8	8	ឧ
臣10 上	8	ឧ	8	8	8	ន	8	ឧ	8	ଷ	ଯ	ଯ	ଯ	ଯ	8	ଯ	8	8	8	8	8	8	8	8	8	8	8	8
中	20	20	20	20	20	20	20	20	8	ន	8	8	20	20	20	20	20	8	8	8	20	2	20	20	20	20	20	20
118	20	50	20	20	20	20	8	20	20	20	20	20	20	8	20	20	20	8	8	20	8	8	20	20	20	20	20	8
一一一	20	8	20	8	8	8	20	20	20	8	8	20	8	20	8	8	8	8	8	ຊ	8	8	8	8	20	8	8	20
- 9 <u>H</u>	20	20	20	20	8	20	8	20	50	8	20	20	8	ឧ	20	20	2	8	8	20	20	20	20	8	70	8	8	8
																											8	
																											8	
																											8	
HE2	2	8	8	8	ଷ	8	8	8	ล	ឧ	20	20	8	8	8	2	8	8	8	8	ଧ	8	8	8	8	8	ន	8
																											8	
																											-Feb-10	

TOTAL 13,400

		_	_	_	_		_	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_		_	_	_			_	_
	TOTAL	<u>8</u> 4	<u>48</u>	480	<u>\$</u>	474	480	48(	. 48	46	₩ ₩	48	48	₹	<del>4</del> 6	47	48	<del>8</del> 4	<del>8</del> 4	<b>₩</b>	32	<b>4</b> ₩	<del>8</del> 4	<del>8</del> 4 ₩	476	48	<del>84</del>	<del>8</del> 4	42	480	₹	<del>8</del> 4
	HE24	8	20	20	20	8	20	50	20	8	20	20	8	8	20	50	50	20	20	20	20	20	20	20	8	50	20	20	20	2	ຊ	8
	HE23	8	8	ଷ	8	ଯ	8	କ୍ଷ	8	ଯ	ଷ	ଯ	ଯ	ଯ	8	8	20	20	8	ଷ	8	8	8	8	8	8	20	8	8	8	ଷ	8
	HE22 +	8	ន	8	20	8	20	8	8	8	8	R	8	8	8	20	20	20	8	ଯ	12	20	8	8	8	20	20	8	20	ଷ	ଷ	8
	HE21 +	8	8	20	8	20	20	8	8	8	ឧ	8	8	8	8	8	R	8	8	ଯ	12	ଯ	8	8	ឧ	8	8	8	17	8	8	8
	HE20 T	8	8	ଧ	8	20	20	8	ଯ	8	20	8	8	8	20	17	8	20	20	20	14	8	8	8	8	8	8	2	17	8	ន	8
	五十9 上	8	20	20	8	20	20	8	50	8	20	8	50	20	50	20	20	8	8	8	12	8	8	8	20	20	20	8	17	20	20	8
		8	20	20	8	8	20	8	ឧ	8	8	20	8	8	8	8	8	ଷ	8	8	5	ଷ	8	8	8	8	8	8	17	8	ឧ	8
		8	20	8	8	20	20	8	20	20	8	8	20	20	20	20	20	20	8	8	=	8	8	20	8	20	8	20	17	20	20	20
	HE16	8	2	20	20	20	50	ຂູ	2	20	20	8	8	8	20	20	20	8	20	20	12	8	8	8	8	20	8	8	15	20	ଥ	8
	五七5 -	8	8	8	2	8	8	8	20	8	8	8	20	8	8	8	20	8	8	ଷ	7	8	8	8	8	ଷ	8	8	4	20	ឧ	8
	五十二	8	8	8	8	8	20	8	8	8	20	8	8	8	20	70	8	8	8	8	7	8	8	8	8	50	ଯ	ଷ	4	ଷ	ន	8
	五十3	ଧ	ଯ	8	ୡ	8	50	ୡ	ଯ	ଷ	ଯ	ଯ	8	8	8	8	8	8	8	8	7	8	8	8	8	ଧ	8	ଯ	17	ଷ	8	ឧ
	HE12	8	8	ଷ	8	8	8	ଯ	8	8	8	8	8	8	ឧ	8	8	8	20	8	12	8	2	50	8	8	ឧ	8	17	8	8	8
175	五二	8	ឧ	20	2	20	50	20	8	20	20	8	8	8	8	20	8	8	8	8	13	20	2	8	16	20	8	8	17	8	8	8
CLB	HE10	ଷ	8	8	8	8	20	8	8	8	ଷ	20	8	20	8	8	8	8	8	8	Ħ	8	20	20	8	ଷ	ឧ	8	17	8	8	ଷ
/ 866	7																													8		
C A	HE8	8	8	8	8	8	20	8	8	20	2	20	8	50	20	20	20	8	20	20	^	20	8	8	ឧ	20	20	8	17	ଯ	8	8
in Mar 10 for Deal CLA	HE7	20	8	8	20	2	20	8	8	0	20	8	20	8	20	20	8	50	50	8	20	20	8	8	8	8	8	8	17	8	8	ଷ
for	HE6				8	8	8	ଧ	8	ଯ	ଧ	ଯ	8	ଷ	ଧ	20	ଷ	8	8	8	20	8	ଷ	ଯ	ଷ	8	20	ଷ	17.	8	ଛ	ଧ
ar 10	ŦES	8	20	8	8	20	20	20	8	8	20	8	8	8	8	20	8	8	20	20	8	8	8	20	8	8	20	20	19	20	ଷ	8
	HE4	8	ଯ	ଯ	ឧ	8	8	ଧ	8	8	8	8	ଷ	ଷ	ឧ	ଷ	ଯ	8	8	8	8	ଷ	ଷ	8	ឧ	ଷ	8	8	8	ଯ	8	8
	HE3	8																												20		
ed to	HE2	8																												8		
liver	띺	20	8	8	20																									20		8
Table 2 RECs Delivered to		1-Mar-10	2-Mar-10	3-Mar-10	4-Mar-10	5-Mar-10	6-Mar-10	7-Mar-10	8-Mar-10	9-Mar-10	10-Mar-10	11-Mar-10	12-Mar-10	13-Mar-10	14-Mar-10	15-Mar-10	16-Mar-10	17-Mar-10	18-Mar-10	19-Mar-10	20-Mar-10	21-Mar-10	22-Mar-10	23-Mar-10	24-Mar-10	.25-Mar-10	26-Mar-10	27-Mar-10	28-Mar-10	29-Mar-10	30-Mar-10	31-Mar-10

TOTAL 14,640

Table 3 RECs Delivered to TEP in Apr 10 for Deal CLA 998 / CLB 175

TOTAL	480	480	<del>4</del> 89	479	480	480	480	480	480	480	480	480	480	361	297	<b>5</b> 86	263	274	272	393	480	<del>4</del> 89	480	480	480	480	<del>8</del> 4	480 80	480	480
HE24	20	50	8	8	20	50	20	20	20	50	8	8	8	1	12	12	12	12	ယ	8	20	20	20	8	20	2	ଷ	ଷ	8	ଯ
<b>E23</b>	ଷ	ଯ	8	ଷ	ଷ	ឧ	8	8	8	20	8	ឧ	ଯ	ഗ	7	7	ß	12	φ	8	ଯ	8	8	ឧ	8	8	8	ឧ	ឧ	ଯ
1E22	8	20	ଷ	ଷ	8	8	ଯ	ଷ	ଯ	8	8	8	ଯ	5	5	=	თ	7	12	8	8	8	8	8	8	8	ଯ	8	ឧ	8
臣工	8	8	8	8	8	8	8	ଷ	8	8	ଯ	ଯ	ଷ	5	13	42	7	12	Ħ	8	8	ଯ	8	8	ଧ	8	ଯ	ଯ	ଷ	ଷ
	8	8	8	8	8	8	8	8	20	8	ଯ	8	20	ಧ	13	7	12	12	12	ଷ	8	20	20	8	8	8	8	ଯ	ଷ	8
119 1	8	8	8	8	8	8	20	8	20	8	8	ឧ	8	5	13	72	12	12	7	8	8	2	2	8	8	ឧ	2	8	8	8
		8																												
E17	8	8	ଧ	8	ឧ	ឧ	8	ଯ	ឧ	8	ଷ	ឧ	ឧ	<u>ნ</u>	<u>ნ</u>	42	12	7	2	8	ଷ	ଯ	8	ន	ଷ	ଯ	ଷ	8	ឧ	ឧ
년16 F	ଯ	70	8	ଯ	ଷ	8	8	8	8	8	8	20	20	5	7	#	12	7	72	8	ឧ	ଷ୍ଟ	ଯ	ଷ	8	8	8	8	8	ឧ
<b>拒15</b>	8	8	8	ឧ	8	ଯ	8	ឧ	ଷ	8	8	ส	8	5	F	12	£	12	72	8	8	8	ឧ	8	20	8	8	ম	ଯ	ଯ
		8																												
		8																												
년12 r	ଷ	ឧ	8	ឧ	ଷ	ឧ	8	8	ឧ	8	8	8	8	5	£	7	4	တ	7	ଷ	8	8	8	8	ଷ	ଯ	ଷ	8	8	8
ボハ ト	ପ୍ଷ	8	8	8	8	ឧ	8	8	8	8	ଯ	8	8	7	7	7	12	7	12	8	ଥ	8	20	8	ଛ	8	8	8	20	8
<b>売10</b> ト	8	ଷ	8	ଷ	8	ଷ	8	8	8	8	ଯ	ଯ	8	13	12	G	1	Ξ	5	8	ଷ	8	ଷ	8	8	8	ଯ	ଷ	8	8
		ଷ																												
照	20	20	20	8	20	ଯ	20	8	8	8	50	8	ଯ	8	13	13	12	5	12	8	8	8	8	8	20	8	8	ឧ	ឧ	8
HE7	8	ଯ	ଷ	ส	ឧ	ଷ	ଷ	ส	ଷ	8	8	ឧ	ଯ	ଯ	<u>ნ</u>	13	5	6	12	8	ଯ	8	ଯ	ឧ	8	ଯ	8	ଷ	8	8
HE6	8	20	8	8	20	8	20	8	8	8	20	8	20	8	13	13	12	7	12	12	8	8	ଷ	8	8	8	8	8	20	8
		20																												
五	8	20	8	ឧ	ଯ	8	8	8	8	ଯ	ଯ	8	8	8	ξ	ţ	12	£	12	4	8	8	8	ន	8	ଯ	8	ଯ	8	ឧ
盟	20	8	8	8	8	20	8	8	ឧ	ឧ	ଯ	8	8	8	5	5	12	72	12	4	8	8	8	8	8	8	8	Ŕ	ଷ	8
把	8	8	ଷ	8	8	ଯ	8	8	8	ଯ	8	8	8	ଷ	5	5	17	Ę	2	∞	ଷ	ଷ	8	ଯ	8	8	8	8	8	8
五	2	20	20	8	8	2	8	20	8	8	20	20	8	8	13	5	12	72	12	œ	8	2	8	20	20.	20	20	20	8	20
Date	1-Apr-10	2-Apr-10	3-Apr-10	4-Apr-10	5-Apr-10	6-Apr-10	7-Apr-10	8-Apr-10	9-Apr-10	10-Apr-10	11-Apr-10	12-Apr-10	13-Apr-10	14-Apr-10	15-Apr-10	16-Apr-10	17-Apr-10	18-Apr-10	19-Apr-10	20-Apr-10	21-Apr-10	22-Apr-10	23-Apr-10	24-Apr-10	25-Apr-10	26-Apr-10	27-Apr-10	28-Apr-10	29-Apr-10	30-Apr-10

TOTAL 13,185

Table 4
RECs Delivered to TEP in May 10 for Deal CLA 998 / CLB 175

																										٠					
TOTAL	480	480	480	480	480	480	480	480	480	474	478	479	476	469	476	479	414	393	4 464	480	480	480	480	480	480	480	480	480	480	475	480
HE24	20	20	20	8	20	20	20	20	20	20	8	20	8	19	20	20	15	49	20	20	20	8	8	20	20	20	20	20	8	8	8
HE23	8	20	20	8	8	8	20	8	20	8	18	19	16	5	8	8	15	19	ଧ	8	8	ଷ	8	ន	ଯ	2	2	8	20	8	20
HE22 I	8	8	8	8	8	8	20	8	8	20	8	8	8	8	8	19	15	19	ଯ	20	20	2	8	8	8	8	20	20	8	20	8
HE21 1	20	20	8	20	2	20	20	8	8	20	ଷ	8	8	8	8	8	15	49	8	ଯ	8	8	8	ଷ	8	8	ଯ	ଯ	8	8	8
HE20 +	8	20	ଯ	8	8	20	ଯ	8	8	20	50	8	8	ଧ	8	20	15	17	20	20	20	ଯ	8	8	20	8	ଯ	ଯ	ଯ	20	20
HE19 P	20	8	ଷ	8	ឧ	20	ଷ	20	8	20	ន	8	ଯ	ឧ	8	20	15	17	8	8	20	20	20	8	8	20	8	8	8	8	8
HE18 +	8	20	8	8	ଯ	8	8	8	8	48	ଯ	ଷ	ឧ	8	8	8	16	17	8	8	8	8	8	20	20	8	8	8	8	8	8
HE17 F	20	20	50	8	20	20	70	20	8	17	ଷ	20	8	20	8	8	16	17	20	8	20	20	2	20	50	8	8	8	20	20	20
HE16 +	8	ឧ	ឧ	ଯ	8	8	8	8	8	9	8	8	ଯ	2	2	20	16	17	8	8	8	20	8	8	8	8	8	ឧ	8	8	8
HE15 1	8	8	8	ଷ	ឧ	20	8	8	8	ଯ	8	8	8	16	<u>5</u>	ឧ	16	11	8	8	20	8	8	ឧ	20	8	8	8	ឧ	15	ឧ
五二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十	20	8	20	8	8	8	8	8	8	2	8	8	8	17	19	20	16	ť	20	8	20	8	20	8	20	8	8	ଥ	8	20	8
五元	8	8	8	8	8	8	ឧ	8	8	8	8	8	8	9	8	20	16	13	8	8	ଷ	8	8	8	8	8	8	ଯ	ន	8	8
HE12										8																					
HE11	8	20	8	8	8	20	2	20	8	20	8	20	8	20	8	8	18	5	8	20	8	8	8	8	8	20	20	Ś	8	8	8
FE10	8	8	8	ଯ	8	8	8	8	8	8	ଯ	ଷ	8	8	8	20	16	5	8	20	ଯ	20	20	20	8	20	8	8	8	8	ឧ
<u>원</u>	20	8	20	ଷ	8	8	8	20	8	8	8	8	8	20	8	20	18	16	18	20	20	8	8	20	20	20	20	8	8	8	8
翌	8	8	8	8	8	8	8	20	20	8	ଷ	8	ଷ	8	8	20	19	16	8	8	8	8	2	20	20	8	20	20	20	8	8
Æ7	20	8	8	20	20	20	20	8	8	20	20	20	ឧ	ଯ	8	8	ଷ	16	8	8	8	ଯ	ଷ	8	8	8	8	8	2	20	8
	20																														
訊	20	8	20	8	8	20	20	20	8	20	20	20	8	8	20	8	20	16	17	8	8	ଯ	8	8	22	ଧ	8	ଛ	ଯ	20	8
	20																														
罚	20	8	8	20	20	20	20	8	20	8	20	8	8	20	8	2	20	15	5	20	8	2	8	8	8	8	8	8	20	20	8
_	20																														
_	8																														
Date	1-May-10	2-May-10	3-May-10	4-May-10	5-May-10	6-May-10	7-May-10	8-May-10	9-May-10	10-May-10	11-May-10	12-May-10	13-May-10	14-May-10	15-May-10	16-May-10	17-May-10	18-May-10	19-May-10	20-May-10	21-May-10	22-May-10	23-May-10	24-May-10	25-May-10	26-May-10	27-May-10	28-May-10	29-May-10	30-May-10	31-May-10

TOTAL 14,677

Table 5 RECs Delivered to TEP in Jun 10 for Deal CLA 998 / CLB 175

																•														
TOTAL	480	480	480	476	449	479	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	479	439	480	480	480	480	480	480
HE24	8	20	8	16	20	8	2	20	20	8	8	20	20	20	20	20	20	8	8	70	20	8	8	8	20	8	20	8	8	20
HE23	ଯ	8	8	ଯ	16	8	8	ଷ	8	ଯ	ଯ	8	ଛ	8	8	ଯ	8	8	8	8	ଯ	8	8	19	8	<u>م</u> '	8	ଧ	ଷ	ଯ
HE22 +	20	20	20	8	42	13	8	8	20	8	8	ន	8	8	8	8	8	8	8	8	8	8	8	2	8	20	20	8	8	8
HE21 F	8	8	8	8	8	8	ឧ	ଷ	8	8	8	8	8	ଯ	ឧ	8	8	ន	ឧ	ଧ	ଯ	ଯ	8	17	8	ଷ	ଯ	ឧ	ଛ	8
HE20 F	8	8	ଷ	ଯ	ဖ	8	8	8	20	20	8	8	8	8	20	23	20	8	8	8	8	20	20	15	8	8	8	8	20	20
HE19 F	8	ଷ	8	8	20	8	20	20	20	20	20	20	8	20	8	50	20	20	8	20	20	20	8	16	8	8	8	20	8	20
HE18 F	ន	8	8	8	8	20	8	8	20	8	8	8	8	8	20	8	20	20	8	20	8	2	20	15	8	8	8	8	20	20
11.1	8	8	8	ୡ	8	20	20	8	20	20	8	20	8	20	8	8	8	20	8	20	20	8	20	. 15	20	20	8	8	20	2
HE16 +	20	8	20	8	20	8	ଥ	8	8	8	8	ଯ	ଷ	8	8	8	ଯ	ଯ	8	8	8	ଷ	13	15	8	8	ଷ	8	8	ଯ
1E15 1	8	8	8	8	ឧ	ଯ	8	ଯ	8	8	8	8	8	ଯ	8	ឧ	ଯ	8	8	8	8	ଯ	ଯ	16	8	8	ଯ	ଷ	ଯ	ଯ
HE14 1	8	8	ଥ	8	ឧ	8	20	8	8	8	8	8	20	8	8	ឧ	8	20	20	50	8	ଷ	8	19	8	8	8	ន	ଯ	8
HE13	8	8	8	8	8	8	8	ឧ	8	8	8	8	ឧ	8	8	ଷ	8	8	8	ล	ଷ	8	8	17	ଷ	8	8	8	8	8
七12 1	8	8	8	ଷ	8	8	8	ଷ	ଷ	ឧ	ଯ	ଷ	8	ଷ	8	ଷ	ଷ	8	ୡ	8	8	ଷ	8	17	8	8	ଷ	ଯ	ଷ	ଯ
五二二	20	8	70	8	8	ଷ	8	8	8	8	8	8	20	8	20	ឧ	8	8	20	ଷ	8	8	20	20	8	8	8	8	20	8
上10	ន	ଯ	20	8	8	8	50	20	8	8	8	8	8	ଷ	8	8	2	8	8	8	ଯ	ଷ	8	8	8	ଷ	8	8	8	8
品																				8										
HE8	8	ଧ	8	20	ୡ	ଛ	ଛ	8	ଷ	ଯ	ଯ	ឧ	ଯ	8	8	ଷ	ଯ	8	8	8	8	8	ଥ	8	ଷ	ଯ	8	20	8	8
HE7																				8										
ZE6	8	8	ଷ	ଷ	8	ଯ	8	8	ଥ	8	8	ଷ	8	ន	ଯ	ଯ	8	8	8	ຊ	ጸ	8	ଷ	8	ឧ	ឧ	8	20	8	ଯ
																				8										
HE4	ଷ	8	8	8	8	8	8	8	8	ଷ	8	ଷ	8	8	ଷ	ଯ	8	8	8	8	ଯ	ឧ	8	8	ଷ	ଯ	ឧ	ଯ	ឧ	ଯ
HE3	20	20	20	20	20	20	20	8	8	20	8	8	8	8	20	8	8	8	8	8	8	8	8	20	8	8	8	8	20	8
HE2	ଷ	ଷ		20	2	8	2	8	ଷ	ଷ	8	ឧ	8	8	ଷ	ଷ	ឧ	8	8	8	8	8	ଷ	8	R	2	8	8	8	8
吊	8	8	8	2	15	20	8	8	8	8	8	ឧ	8	8	8	8	ଷ	8	8	8	8	20	8	2	8	8	8	8	8	8
Date	1-Jun-10	2-Jun-10	3-Jun-10	4-Jun-10	5-Jun-10	6-Jun-10	7-Jun-10	8-Jun-10	9-Jun-10	10-Jun-10	11-Jun-10	12-Jun-10	13-Jun-10	14-Jun-10	15-Jun-10	16-Jun-10	17-Jun-10	18-Jun-10	19-Jun-10	20-Jun-10	21-Jun-10	22-Jun-10	23-Jun-10	24-Jun-10	25-Jun-10	26-Jun-10	27-Jun-10	28-Jun-10	29-Jun-10	30-Jun-10

0 20 480 TOTAL 14,322



Commercial Operations 1800 Larimer Suite 1000 Denver, CO 80202

March 1, 2010

UniSource Energy Attn: Carmine Tilghman, Director – Renewable Energy Resources One South Church Avenue Mail Stop UE2004, PO Box 711 Tucson, AZ 85702

Carmine,

For the month of February, 8,435 MWs of bundled energy was delivered to TEPM. All of the MWs delivered were under the fixed price option at \$66.25. Below, I have listed out the deliveries by farm:

Resource	EIA#	MWs
Logan:	56613	8,185
CO-Green:	56173	250
Total:		8,435

Please feel free to contact me with any questions or concerns. We have enjoyed doing business with you and look forward to meeting Tucson's future needs.

Regards

Eric Pièrce

Managing Director, Energy Trading



Commercial Operations 1800 Larimer Suite 1000 Denver, CO 80202

February 2, 2010

UniSource Energy Attn: Carmine Tilghman, Director – Renewable Energy Resources One South Church Avenue Mail Stop UE2004, PO Box 711 Tucson, AZ 85702

Carmine,

Below is a quick summary of our bundled deliveries for the month of January:

9,967 MWs of bundled energy was delivered to TEPM for the month of January. 9,284 MWs were delivered at a fixed price and the additional 683 MWs were delivered at a real time price. Please see below the total MWs by resource delivered:

Resource	EIA#	MWs
Cedar	56371	1,125
CO-Green	56173	750
Logan	56613	8,092
Total MWs		9,967

Please feel free to contact me with any questions or concerns.

Regards.

Eric Pierce

Managing Director, Energy Trading

Attestation from an independent auditor that project selection procedures are fair and unbiased

# **CONFIDENTIAL**

#### **Description of Extra Credit Multipliers**

The REST order allows utilities to earn RECs from sources other than actual energy production based on applicable extra credit multipliers ("Multipliers"). These Multipliers include the Early Installation Extra Credit Multiplier, the In-State Power Plant Installation Extra Credit Multiplier, the In-State Manufacturing and Installation Content Extra Credit Multiplier, and the Distributed Solar Electric Generator and Solar Incentive Program Extra Credit Multiplier.

The Multipliers are applied to the energy generated by an eligible renewable energy resource. The energy generated by a given facility during a compliance period is multiplied by the multiplier, producing the "extra credit" earned by that facility. This "extra credit" is then added to the RECs produced by the facility as a result of its energy production to provide the total number of RECs generated by that facility during a given compliance period. The multipliers are additive, but the total multiplier cannot exceed 2.0. Table E3.1, below, shows each multiplier and its related value.

Table E3.1 - REST Extra Credit Multipliers

Extra Credit Multipliers	Value
Early Installation Extra Credit: Installed and Began Operating in	
2001	0.3
2002	0.2
2003	0.1
In-State Power Plant Extra Credit (1997-2005)	0.5
In-State Manufacturing and Installation Content (1997-2005)	0.5 * (% in-state content in installed plant)
DE Solar Electric Generator and Solar Incentive Program (1997-2005)	0.5
Source: Renewable Energy Standard and Tariff, R14-2-1806.	

The Multipliers only apply to systems installed between January 1, 1997 and December 31, 2005. In some cases, the definition is even narrower. There is no expiration date for any of the Multipliers except the Early Installation Extra Credit Multiplier. The Early Installation Extra Credit Multiplier is only applied during the first five years following a facility's operational startup; as a result, 2008 will be the final year for applying this multiplier. The remaining Multipliers can be applied to facility generation for the life of the facility.

#### **Documentation of TEP REC retirements for 2010**

(Signed Certificate available upon request)

# CERTIFICATE OF RETIREMENT OF RENEWABLE ENERGY CREDITS

Original Certificate Issue

Certificate No. TEP/REST: WRE 159,302,632 – 345,138,392 Certificate No. TEP/REST: DERES 11,585,148 – 23,807,276

Certificate No. TEP/REST: DECOM 3,973,235 - 15,596,807

On March 31, 2011 Tucson Electric Power Company (TEP) retired 185,835,760 Utility-Scale/Wholesale Renewable Energy Credits (WRE); 12,222,128 Distributed Energy - Residential Credits (DERES); and 11,623,572 Distributed Energy - Commercial Credits (DECOM) towards meeting its 2010 Renewable Energy Standard requirements.

- TEP certifies that it derived the Wholesale Renewable Energy Credits from certified wholesale market trades that were delivered, and verified through WebTrader<sup>TM</sup>, into the TEP service territory.
- 2. TEP certifies that it derived all other Utility Scale Solar and Distributed Energy Solar from actual generation of electricity and the application of the multipliers as permitted by the EPS and the RES.
- 3. TEP further certifies that, at the time of this transfer, it had title to the Credits transferred to TEP and that such Credits have not previously expired, have not been otherwise used by TEP to meet its Environmental Portfolio Standard or Renewable Energy Standard requirements, and have not been transferred by TEP to any other entity.

Attested to:

Name of TEP officer - David Hutchens

Title - Executive Vice President

Date - March 31, 2011

Signature /s/ David G. Hurchens